

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Claims 1-6 remain in this application. Claims 1-6 have been rejected under 35 U.S.C. 102(a) as being anticipated by U.S. 5,289,041 to Holley (hereinafter Holley). For the following reasons, the Examiner's rejection is traversed.

Holley is directed to a wind turbine having a speed control system, wherein better conversion of wind energy to electrical energy is provided during fluctuating wind conditions by controlling the turbine rotor speed to approximately follow the varying wind speeds. Holley uses a "wind speed observer" to predict wind speed and rotor speed at a next time (t plus Δt) based on known or estimated parameters at a present time t . The known or estimated parameters used by the wind observer include load torque, current wind speed, current yaw error, current rotor speed, and blade pitch angle if the turbine is the type that allows variable blade positions.

Holley states that if the average wind speed has increased above a high shutdown speed, the wind turbine must be shut down to prevent damage. The wind turbine may be shut down by providing a breaking torque above the aerodynamic driving torque and fully feathering the blades so that they provide no aerodynamic torque.

Applicant has amended claims 1 and 6, to more clearly indicate that the output of the claimed *operating* turbine is *reduced* when a defined wind-speed-

dependent threshold value is exceeded.

Regarding amended claim 1, Holley fails to disclose a management system for the operation of a wind turbine which regulates the power output of the turbine and "reduces, in excess of a defined wind-speed-dependent threshold value, the power output of the operating turbine to a quantity that is less than the nominal output but greater than an output where the wind turbine is turned off, and wherein the defined wind-speed-dependent threshold value is a defined rotor blade limiting angle", as required.

Rather, Holley states that if the average wind speed has increased above a "high shutdown speed", the wind turbine must be shut down to prevent damage. In Holley, the turbine is shut down by providing a breaking torque above the aerodynamic driving torque and fully feathering the blades so that they provide no aerodynamic torque, as previously stated. Holley does not teach a reduction of output of the operating turbine to a level below the nominal output.

In contrast, in the claimed invention, upon reaching a wind-speed-dependent threshold, the power output is reduced below a nominal output while the turbine continues to operate. Unlike Holley, the turbine is not shut off. Instead, the turbine is shut off when the output is reduced to such an extent that a shut down output quantity is reached.

Nowhere does Holley teach or suggest that it would make sense to reduce power or rotor speed with increasing wind speed. Holley only suggests limiting rotor speed and power to constant values in high wind speeds or to shut off the turbine completely. Holley provides a system in which rotor speed tracks the wind speed in order to maximize wind energy production and nowhere does Holley suggest a

benefit from reducing power when wind speed increases.

Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested. Claims 2-5 depend directly or indirectly from claim 1 and are believed to be allowable at least for the reasons stated above. Reconsideration and withdrawal of the rejection of claims 2-5 is respectfully requested.

Regarding amended claim 6, Holley does not disclose "reducing the output of the operating turbine, in excess of a defined wind-speed-dependent threshold value, to a quantity that is less than the nominal output but is greater than an output where the wind turbine is turned off, wherein the defined wind-speed-dependent threshold value is a defined rotor blade limiting angle," as required. As previously stated, Holley discloses that if the average wind speed has increased above a "high shutdown speed", keeping the wind turbine speed and power may be kept at constant values in the high wind speeds or the turbine may be shut off completely. Reduction of the speed of an operating turbine is not disclosed or suggested. Reconsideration and withdrawal of the rejection of claim 6 is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. SCH-16126.

Respectfully submitted,

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